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The following were received in the United States Patent and Trademark Office:

Title of Invention: **METHOD FOR FAST, ROBUST, MULTI-DIMENSIONAL
PATTERN RECOGNITION**

Attorney Docket No.: **C98-035**

Attorney: **Russ Weinzimmer**

Applicant: **Silver et al.**

or **Tracy Calabresi**

Serial No.: **09/114,335**

Filing Date: **07/13/98**

- Transmittal of Information Disclosure Statement after three months of filing Application and before mailing of a first Office Action on the merits (37 CFR 1.97(b)).
- Form PTO-1449 (in duplicate)
- Copies of references cited in Form PTO-1449.



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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of: **Silver et al.**Serial No.: **09/114,335**Group No.: **2741**Filed: **July 13, 1998**

Examiner:

For: **METHOD FOR FAST, ROBUST, MULTI-DIMENSIONAL
PATTERN RECOGNITION**Attorney Docket Number: **C98-035****RECEIVED**Assistant Commissioner for Patents
Washington, DC 20231

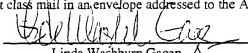
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**TRANSMITTAL OF INFORMATION DISCLOSURE STATEMENT
AFTER THREE MONTHS OF FILING APPLICATION AND BEFORE MAILING OF A
FIRST OFFICE ACTION ON THE MERITS (37 CFR 1.97(b))**

CERTIFICATE OF MAILING (37 CFR 1.8a)

I hereby certify that on November 25, 1998, this correspondence is being deposited with the United States Postal Service with sufficient postage as first class mail in an envelope addressed to the Assistant Commissioner for Patents, Washington, DC 20231.


Linda Washburn Gagen**1. Authority**

Pursuant to 37 CFR §§ 1.56 and 1.97-1.99, the Applicant cites to the Examiner documents containing information which, in good-faith judgment of the Applicant, may be relevant to the subject matter claimed in the above-identified application. The Applicant also encloses copies of the English-language cited documents.

In submitting this Information Disclosure Statement, the Applicant makes no representation that a search has been performed, or the extent of any search performed, or that more relevant information does not exist.

In submitting this Information Disclosure Statement, the Applicant makes no representation that any document cited in this Information Disclosure Statement is, or is considered to be prior art as defined by 35 USC §§ 102 and 103.

2. Time of Transmittal of Accompanying Information Disclosure Statement

The Information Disclosure Statement transmitted herewith is being filed *after* three months of the filing date of this national application but *before* the mailing date of the first Office action on the merits.

It is Applicant's understanding that no fee is due; however, if the Applicant is incorrect, please charge any necessary fees for the above-captioned application to Deposit Account No. 03-2357.

3. Co-pending U.S. Applications

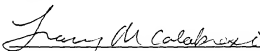
Please be aware that the following co-pending U.S. Patent Applications are related to this patent application:

- 08/727,721 Filed October 7, 1996
- 08/971,241 Filed November 15, 1997
- 09/001,869 Filed December 31, 1997
- 09/108,279 Filed July 1, 1998

The Applicant respectfully requests that:

- a. The Examiner consider the cited information in reaching a determination concerning the patentability of the pending claims; and
- b. The enclosed Form PTO-1449 be signed by the Examiner to evidence that the cited information has been fully considered by the Patent and Trademark Office during the examination of this application.

Respectfully Submitted,



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or Tracy M. Calabresi Registration No. 38,920
Attorneys for Applicant

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Substitute for form 1449A PTO NOV 17 2000
INFORMATION DISCLOSURE STATEMENT BY APPLICANT
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**INFORMATION DISCLOSURE
STATEMENT BY APPLICANT**

(use as many sheets as necessary)

Complete if Known

Application Number	09/114,335
Filing Date	07/13/98
First Named Inventor	Silver
Group Art Unit	2741
Examiner Name	
Attorney Docket Number	C98-035

Filing Date	07/13/98
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First Named Inventor	Silver
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Group Art Unit 274

Examiner Name _____

Attorney Docket Number C98-035

U.S. PATENT DOCUMENTS

Examiner Initials	Cite No. ㉓	U.S. Patent Document		Name of Patentee or Applicant of Cited Document	Date of Publication of Cited Document MM-DD-YYYY	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		Number	Kind Code ㉔ (if known)			
		3,069,654		Hough	12-18-1962	
		3,936,800		Ejiri et al.	02-03-1976	
		4,200,861		Hubach et al.	04-29-1980	
		4,441,206		Kuniyoshi et al.	04-03-1984	
		4,567,610		McConnell	01-28-1986	
		4,637,055		Taylor	01-13-1987	
		4,651,341		Nakashima et al.	03-17-1987	
		4,672,676		Linger	06-09-1987	
		4,736,437		Sacks et al.	04-05-1988	
		4,783,829		Miyakawa et al.	11-08-1988	
		4,799,175		Sano et al.	01-17-1989	
		4,823,394		Berkin et al.	04-18-1989	
		4,843,631		Steinpicbler et al.	06-27-1989	
		4,955,062		Terui	09-04-1990	
		5,046,109		Fujimori et al.	09-03-1991	
		5,048,094		Aoyama et al.	09-10-1991	

FOREIGN PATENT DOCUMENTS

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Unique citation designation number. See attached Kinds of U.S. Patent Documents. Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. Applicant is to place a check mark here if English language Translation is attached.

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**INFORMATION DISCLOSURE
STATEMENT BY APPLICANT**

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Application Number	09/114,335
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Filing Date	07/13/9
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First Named Inventor	Silver
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Group Art Unit	2741
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Examiner Name _____

Attorney Docket Number	C98-035
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U.S. PATENT DOCUMENTS

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		Number	Kind Code (if known)			
		5,168,530		Peregrin et al.	12-01-1992	
		5,253,306		Nishio	10-12-1993	
		5,313,532		Harvey et al.	05-17-1994	
		5,347,595		Bokser	09-13-1994	
		5,384,711		Kanai et al.	01-24-1995	
		5,481,712		Silver et al.	01-02-1996	
		5,495,537		Bedrosian et al.	02-27-1996	
		5,537,669		Evans et al.	07-16-1996	
		5,568,563		Tanaka et al.	10-22-1996	
		5,586,058		Aloni et al.	12-17-1996	
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		5,657,403		Wolff et al.	08-12-1997	
		5,717,785		Silver	02-10-1998	

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²⁰Unique citation designation number. ²¹See attached Kinds of U.S. Patent Documents. ²²Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). ²³For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. ²⁴Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. ²⁵Applicant is to place a check mark here if English language Translation is attached.



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Application Number	09/114,335
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Examiner Name	
Attorney Docket Number	C98-035

Sheet 3 of 4

OTHER PRIOR ART - NON PATENT LITERATURE DOCUMENTS

Examiner Initials *	Cite No. 1	Name of the Author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T 2
		BALLARD, D.H., "Generalizing the Hough Transform to Detect Arbitrary Shapes," <i>Pattern Recognition</i> , 1981, pp. 111-122. Vol. 13, No. 2, Pergamon Press Ltd., UK	
		BALLARD, et al., "Section 4.2 Searching Near and Approximate Location," and "Section 4.3 The Hough Method for Curve Detection," <i>Computer Vision</i> , 1982, pp. 121-131, Prentice-Hall, Inc., Englewood Cliffs, NJ, USA	
		BROWN, LISA GOTTESFELD, "A Survey of Image Registration Techniques," <i>ACM Computing Surveys</i> , December 1992, pp. 325-376, Vol. 24, No. 4, Association for Computing Machinery, USA	
		CAELLI, et al., "Fast Edge-Only Matching Techniques for Robot Pattern Recognition," <i>Computer Vision, Graphics, and Image Processing</i> 39, 1987, pp. 131-143, Academic Press, Inc.	
		CAELLI, et al., "On the Minimum Number of Templates Required for Shift, Rotation and Size Invariant Pattern Recognition," <i>Pattern Recognition</i> , 1988, pp. 205-216, Vol. 21, No. 3, Pergamon Press plc.	
		COGNEX CORPORATION, "Chapter 2 Searching," <i>Cognex 2000/3000/4000 Vision Tools</i> , 1992, pp. 2-1 to 2-62, Revision 5.2 P/N 590-0103, Natick, MA, USA	
		COGNEX CORPORATION, "Chapter 1 Searching," <i>Cognex 3000/4000/5000 Programmable Vision Engines, Vision Tools</i> , 1996, pp. 1-68, Revision 7.4 590-1036, Natick, MA, USA	
		COGNEX CORPORATION, "Chapter 14 Golden Template Comparison," <i>Cognex 3000/4000/5000 Programmable Vision Engines, Vision Tools</i> , 1996, pp. 569-595, Revision 7.4 590-1036, Natick, MA, USA	
		COGNEX CORPORATION, "Apex Search Object Library Functions," Natick, MA, USA, 1998 but public before the above-referenced filing date.	
		COGNEX CORPORATION, "Apex Search Object," <i>acuWin version 1.5</i> , March 31, 1997, pp. 1-35, Natick, MA, USA	
		COGNEX CORPORATION, "Apex Model Object," <i>acuWin version 1.5</i> , March 31, 1997, pp. 1-17, Natick, MA, USA	
		COGNEX CORPORATION, "Description of Sobel Search," Natick, MA, USA, 1998 but public before the above-referenced filing date.	

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First Named Inventor	Silver
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Group Art Unit	2741
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Examiner Name _____

Attorney Docket Number C98-035

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OTHER PRIOR ART - NON PATENT LITERATURE DOCUMENTS

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